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EXAMINER  
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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/628,805

Applicant(s)

ASMUSSEN, MICHAEL L.

Examiner

Hunter B. Lonsberry

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 December 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 7, 8, 12, 13, 15-47, 51, 53-60 and 62-78 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-5, 7, 8, 19, 12-13, 15-47, 51, 53-60 and 62-78 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 12/27/05 have been fully considered but they are not persuasive.

Applicant argues that the combination of Alexander and Rangan fails to teach applicants invention as claimed. Alexander does not teach rankings based on percentages as claimed and determining for one or more of the video programs and one or more of the target categories targeted virtual objects with the overall highest rankings based on the first and second percentages. (amendment page 22)

Regarding applicants argument, Alexander discloses:

Assigning a plurality virtual objects to a virtual advertisement spot 12/16 (column 27, lines 3-15, each virtual object may be assigned theme codes, profile codes and other intelligence, the ads are then set to match criteria set by advertisers for access content, adjacent content and or viewer profile information, column 34, lines 16-23) wherein the assigning the plurality of virtual objects further comprises:

Ranking one or more of the video programs based on target categories and a first percentage of total viewers in one or more groups of viewers (column 34, lines 36-41, the users of the EPG select sports themes more frequently than any other theme, thus sports themes video programs are ranked higher than other programs by a larger percentage of viewers)

Ranking the plurality of virtual objects based on a second percentage of total viewer in one or more groups of viewers (column 30, lines 17-44, column 34, lines 16-23, users are profiled, the profiled information is used to search for suitable advertisements which match the user's interests)

Determining for one or more of the video programs and one or more of the targets categories the plurality of virtual objects with overall highest rankings based on the first and second percentages (column 34, lines 16-23, advertisements may be selected based on access content, adjacent content and or viewer profile information)

Alexander discloses that a group of users can select a sports theme (first percentage) more frequently than any other theme during a prescribed period of time, which then weights sports programming higher than other programming. The history of use is utilized to determine which advertisements are shown, with the weighting applied to determine the proper advertisement. With regards to the second percentage Alexander discloses that the user's profile is compared with the profiles of other users to determine interest.

Applicant argues there is no motivation to combine Alexander and Rangan and that the combination fails to disclose rankings based on percentages as claimed and determining for one or more of the video programs and one or more of the target categories targeted virtual objects with the overall highest rankings based on the first and second percentages. (amendment page 22)

Regarding applicant's argument, Alexander teaches the use of a retrieval plan (column 33, lines 44-65), which is utilized to place advertisements in a virtual advertising spot 12/16 in figure 1. Alexander fails to disclose providing a retrieval plan and video program to the terminal and determining the placement of a virtual advertisement spot in a video program. Rangan discloses a method for adding text overlays, graphic icons and logos for advertisement over a video data stream (column 6, lines 38-50), advertisements may be associated with a tracked object or may be set to track along with an object or appear in a fixed position anywhere on a screen (column 6, lines 6-16, column 17, lines 15-33), a retrieval plan 55 (annotation stream) is transmitted along with a video stream 53 to a user device which instructs the device where to position the advertising data (column 13, line 18-column 14, line 20), thus enabling advertising content to be placed anywhere on a screen while a user watches a program. Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Alexander to utilize the video programs and retrieval plans of Rangan, thus enabling advertising content to be placed anywhere on a screen while a user watches a program. There is motivation to combine as both references are directed to the same problem that is placing advertising content on screen to a viewer.

The references do not teach away from one another as both references are directed to the same problem, that is placing advertising content on screen to a viewer. In particular Alexander teaches the use of video advertisements (column 34, lines 10-35), which are displayed within a program guide, and the use of retrieval plan which dictates where advertisements are to be placed. Rangan discloses that advertisements

may be placed anywhere within a video program according to data received at the STB. It would be desirable, to modify Alexander to utilize the video programs and retrieval plans of Rangan, thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

The examiner has addressed applicant's arguments regarding sending group assignment rules from a remote location to the terminal and assigning objects based on the percentages of total viewers above.

Alexander teaches locally targeting virtual objects within a terminal at column 32, lines 24-34.

Applicant argues that there is no motivation to combine Alexander, Rangan and Godwin (Amendment page 24).

Regarding applicant's argument, Alexander teaches the use of a retrieval plan (column 33, lines 44-65), which is utilize to place advertisements in a virtual advertising spot 12/16 in figure 1. Alexander fails to disclose providing a retrieval plan and video program to the terminal and determining the placement of a virtual advertisement spot in a video program. Rangan discloses a method for adding text overlays, graphic icons and logos for advertisement over a video data stream (column 6, lines 38-50), advertisements may be associated with a tracked object or may be set to track along with an object or appear in a fixed position anywhere on a screen (column 6, lines 6-16,

column 17, lines 15-33), a retrieval plan 55 (annotation stream) is transmitted along with a video stream 53 to a user device which instructs the device where to position the advertising data (column 13, line 18-column 14, line 20), thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Alexander to utilize the video programs and retrieval plans of Rangan, thus enabling advertising content to be placed anywhere on a screen while a user watches a program. There is motivation to combine as both references are directed to the same problem that is placing advertising content on screen to a viewer.

The combination of Alexander and Rangan is silent regarding the use of a GPS receiver to determine a geographical location and to store that data.

Godwin discloses an EPG which is run on a set top box 110, a GPS receiver 524 is utilized to determine the position of the subscriber receiver, this information is passed onto a controller 530 and EPG data module 532, which determines which EPG information should be displayed to a user without requiring any user input (column 7, lines 30-51, figure 8b). Therefore it would have been obvious to one skilled in the art at the time of invention to modify the combination of Alexander and Rangan to utilize the GPS receiver of Godwin to determine which programs and channels should be made available to a user, for the advantage of presenting programming which would be of interest to a user and is relevant to a subscribers location.

There is motivation to combine the references as the combination of Alexander and Rangan discloses the use of zip codes (geographic information) in order to

determine which programming and what advertisements to display. Godwin discloses an EPG, which utilizes a GPS receiver to determine geographic information, which is in turn utilized to determine which programming, should be displayed. It would have been obvious to one skilled in the art at the time of invention to modify Alexander and Rangan to include the features of Godwin, to make sure the proper programming is displayed to the user, and enable the configuration of the EPG without any user input.

Applicant's failure to traverse the Official Notice(s) taken in the previous action are taken as admission of Prior Art.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 7-8, 10, 12-13, 15-32, 34-47, 51, 53-60, 62, and 64-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 6,177,931 B1 to Alexander in view of U.S. Patent 6,493,872 to Rangan.

Regarding claim 1, Alexander discloses a method for targeting virtual advertisements within an electronic program guide in figure 1 comprising

Assigning at least one virtual advertisement spot to a program 12



Assigning a plurality virtual objects to a virtual advertisement spot 12/16 (column 27, lines 3-15, each virtual object may be assigned theme codes, profile codes and other intelligence, the ads are then set to match criteria set by advertisers for access content, adjacent content and or viewer profile information, column 34, lines 16-23) wherein the assigning the plurality of virtual objects further comprises:

Ranking one or more of the video programs based on target categories and a first percentage of total viewers in one or more groups of viewers (column 34, lines 36-41, the users of the EPG select sports themes more frequently than any other theme, thus sports themes video programs are ranked higher than other programs by a larger percentage of viewers)

Ranking the plurality of virtual objects based on a second percentage of total viewer in one or more groups of viewers (column 30, lines 17-44, column 34, lines 16-23, users are profiled, the profiled information is used to search for suitable advertisements which match the user's interests)

Determining for one or more of the video programs and one or more of the targets categories the plurality of virtual objects with overall highest rankings based on the first and second percentages (column 34, lines 16-23, advertisements may be selected based on access content, adjacent content and or viewer profile information)

Generating group assignment rules (column 30, lines 29-44),

Generating a retrieval plan, wherein the retrieval plan instructs one or more of the terminals to select one or more virtual objects for placement in a virtual advertisement spot 14/16 (column 33, lines 44-65),

Providing the retrieval plan to the terminal (column 29, lines 14-30, column 32, lines 22-55) periodically (column 29, lines 22-36, column 32, lines 42-54, column 34, lines 17-25).

Alexander fails to disclose periodically providing a retrieval plan and providing video program to the terminal and determining the placement of a virtual advertisement spot in a video program.

Rangan discloses a method for adding text overlays, graphic icons and logos for advertisement over a video data stream (column 6, lines 38-50), advertisements may be associated with a tracked object or may be set to track along with an object or appear in a fixed position anywhere on a screen (column 6, lines 6-16, column 17, lines 15-33), a retrieval plan 55 (annotation stream) is transmitted periodically (data may be sent within the VBI, thus transmitted during the vertical refresh) along with a video stream 53 to a user device which instructs the device where to position the advertising data (column 13, line 18-column 14, line 20), thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Alexander to utilize the video programs and retrieval plans of Rangan, thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Regarding claim 2, Alexander discloses defining a target category

designating a group based on common viewer characteristics to a target category (column 32, lines 39-47).

Regarding claim 3, Alexander discloses assigning a terminal to a group by, storing the rules at the terminal (column 29, lines 14-30)

Determining one or more group assignments based on the group assignment rules and data related to the terminal (column 32, lines 9-13, 39-47, column 34, lines 17-24).

Regarding claim 4, Alexander discloses that group assignments may be based video programs watched information and that this information is updated to reflect changes (column 29, lines 31-68).

Regarding claim 5, Alexander discloses a retrieval plan comprising  
Designating a group mask for one or more the groups (column 32, lines 45-48)  
Assigning one or more of the groups to one of the virtual objects wherein the group mask indicates which terminals display a virtual object.(column 32, lines 42-48).

Regarding claim 7, Alexander discloses a method for locally targeting virtual advertisements within an electronic program guide in figure 1 comprising:

Categories of virtual objects and video programs are created (column 34, lines 15-20, column 33, lines 57-65),

Within one or more of the categories, groups are defined (column 34, lines 56-column 35, line 2),

Generating group assignment rules based on common viewer characteristics (column 29, lines 31-55, column 30, lines 17-37),

Providing and storing the group assignment rules to the terminals (column 32, lines 27-34)

providing at least one virtual advertisement spot to a program 12

providing one or more virtual objects to a virtual advertisement spot 12/16

providing at least one alternate virtual object (column 33, lines 36-43)

Generating a retrieval plan, wherein the retrieval plan instructs one or more of the terminals to select one or more virtual objects including alternate objects at the terminal (column 33, line 44-column 34, line 9)

wherein generating the retrieval plan comprises :

Assigning the virtual objects to one or more virtual object locations (column 34, lines 58-column 35, line 2, Figure 1, locations 14/16),

Assigning alternate objects (column 34, lines 58-63, column 33, lines 38-43)

Assigning a group to one or more of the virtual objects and alternate virtual objects wherein the assigning the group to the virtual objects and alternate virtual objects (column 32, lines 39-54, column 33, lines 36-65) comprises

Ranking one or more of the video programs based on target categories and a first percentage of total viewers in one or more groups of viewers (column 34, lines 36-41, the users of the EPG select sports themes more frequently than any other theme, thus sports themes video programs are ranked higher than other programs by a larger percentage of viewers)

Ranking the plurality of virtual objects based on a second percentage of total viewer in one or more groups of viewers (column 30, lines 17-44, column 34, lines 16-23, users are profiled, the profiled information is used to search for suitable advertisements which match the user's interests)

Determining for one or more of the video programs and one or more of the targets categories the plurality of virtual objects with overall highest rankings based on the first and second percentages (column 34, lines 16-23, advertisements may be selected based on access content, adjacent content and or viewer profile information)

Alexander fails to disclose providing to one or more of the terminals a video program with one or more virtual object locations.

Rangan discloses a method for adding text overlays, graphic icons and logos for advertisement over a video data stream (column 6, lines 38-50), advertisements may be associated with a tracked object or may be set to track along with an object or appear in a fixed position anywhere on a screen (column 6, lines 6-16, column 17, lines 15-33), a retrieval plan 55 (annotation stream) is transmitted along with a video stream 53 to a user device which instructs the device where to position the advertising data (column

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13, line 18-column 14, line 20), thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Alexander to utilize the video programs and retrieval plans of Rangan, thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Regarding claim 8, Alexander discloses that the program 12 is a TV program (figure 1).

Rangan discloses that the video program is a TV program (column 6, lines 45-50).

Regarding claim 10, Alexander discloses that the virtual object positions may be fixed within a frame (column 22, lines 34-47).

Rangan discloses that the object location is fixed in position across frames of a video program (column 6, lines 6-16).

Regarding claim 11, Rangan discloses that an object location may move spatially in the video program in time (figures 2,3,5, column 6, lines 12-13, column 7, lines 51-column 8, line 33).

Regarding claim 12, Alexander discloses that the virtual channel ads may be interactive (column 26, lines 4-29).

Regarding claim 13, Alexander discloses that programs are broadcast to the terminals and that,

Utilizing the rules to assign a terminal to a group (column 32, lines 35-54),

Comparing the retrieval plan to the group assignments to determine which virtual object to display (column 32, lines 35-54).

Regarding claim 15, Alexander discloses,

Ranking one or more of the video programs based on target categories and a first percentage of total viewers in one or more groups of viewers (column 34, lines 36-41),

Ranking the targeted virtual objects... (column 34, lines 36-43)

Determining for one of the programs... (column 34, lines 58-63)

Assigning one or more objects as default objects (column 34, lines 58-63)

Assigning alternate objects (column 34, lines 58-63).

Regarding claims 16-18, Alexander discloses groups include profiling information such as demographics, viewer entered information, and video programs watched (column 28, lines 13-21, column 29, lines 43-44, column 30, lines 29-38).

Regarding claim 19, Alexander discloses that the profile includes ads watched information (column 27, lines 45-47).

Regarding claim 20, Alexander discloses that the virtual channel ads may be interactive (column 26, lines 4-29) and that the profile includes ads watched information (column 27, lines 45-47).

Regarding claim 21, Alexander discloses the terminal is a set top box (column 3, lines 3-7).

Regarding claim 22, Alexander discloses that the display 10 may be a PC monitor (column 3, lines 3-7) and that the terminal may have an Internet connection (column 33, lines 44-47).

Rangan discloses that system 115 (figure 12), may be integrated with a WEBTV or PC (column 21, lines 27-30).

Regarding claim 23, Alexander discloses that the display 10 may be a generated by a conventional STB (column 3, lines 3-7) and that the EPG may know which satellite services a user is subscribed too (column 28, lines 12-16).

Rangan discloses in figure 12, that system 115 may be coupled to a satellite input (column 21, lines 31-43).



Regarding claim 24, Alexander discloses that the profile includes information regarding which ads a user has watched within the EPG (column 27, lines 45-47) and that profile information may be processed at the headend (column 29, lines 14-21), history of programs watched is over written by deleting the oldest data stored in memory (column 34, lines 49-51).

The combination of Alexander and Rangan fails to disclose deleting the identification of the ad watched from the memory within the terminal.

The examiner takes official notice that deleting information after it has been transmitted is notoriously well known in the art. Deleting information frees up limited memory within a device and enables other information to be stored in its place.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Alexander and Rangan to delete an identification from memory, thus freeing up memory for use by other programs and records within the terminal.

Regarding claims 25-26, Alexander discloses, a method of targeting virtual objects to terminals comprising:

Ranking one or more of the video programs based on target categories and a first percentage of total viewers in one or more groups of viewers (column 34, lines 36-41, the users of the EPG select sports themes more frequently than any other theme, thus sports themes video programs are ranked higher than other programs by a larger percentage of viewers)

Ranking the plurality of virtual objects based on a second percentage of total viewer in one or more groups of viewers (column 30, lines 17-44, column 34, lines 16-23, users are profiled, the profiled information is used to search for suitable advertisements which match the user's interests)

Determining for one or more of the video programs and one or more of the targets categories the plurality of virtual objects with overall highest rankings based on the first and second percentages (column 34, lines 16-23, advertisements may be selected based on access content, adjacent content and or viewer profile information)

Creating a package of targeted virtual objects and providing the ads to one or more of the terminals (column, lines 44-50),

Generating group assignment rules and providing it to one or more of the terminals, to assign a terminal to a group (column 32, lines 35-51),

Generating and providing retrieval plan to the terminal (column 32, lines 41-45)

Providing a program 10 to the terminals, the program including at least one virtual object location 14 (Figure 1).

Alexander fails to disclose providing a video program, which includes at least one virtual object location.

Rangan discloses a method for adding text overlays, graphic icons and logos for advertisement over a video data stream (column 6, lines 38-50), advertisements may be associated with a tracked object or may be set to track along with an object or appear in a fixed position anywhere on a screen (column 6, lines 6-16, column 17, lines 15-33), a retrieval plan 55 (annotation stream) is transmitted along with a video stream 53 to a

user device which instructs the device where to position the advertising data (column 13, line 18-column 14, line 20), thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Alexander to utilize the video programs and retrieval plans of Rangan, thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Regarding claim 27, Alexander discloses retrieving one of the targeted virtual objects for display in a virtual object location 14 (column 33, lines 44-50).

Rangan discloses that ads are placed in virtual object locations (column 6, lines 6-16).

Regarding claim 28, Alexander discloses comparing a group assignment matrix to a retrieval plan and then selecting the appropriate targeted advertisement (column 34, lines 10-23).

Regarding claims 29 and 30, Alexander discloses that a virtual object may be an EPG link to an Internet website (column 34, lines 10-15).

Regarding claim 31, Alexander discloses that group assignments are preformed by analyzing individual and group data (column 31, lines 48-52, column 32, lines 35-47).

Regarding claim 32, Alexander discloses that group assignments may be based programs watched information and that this information is updated to reflect changes (column 29, lines 31-68).

Regarding claim 34, Alexander discloses a method for assigning targeted virtual objects in a program comprising,

- Identifying a program to carry a targeted virtual object (column 33, lines 26-36),
- Assigning the virtual objects to target categories (column 34, lines 16-18),
- Dividing the categories into groups of viewers (column 34, lines 16-18)
- Ranking one or more of the programs based on target categories and a first percentage of total viewers in one or more groups of viewers (column 34, lines 31-41),
- Ranking the targeted virtual objects... (column 34, lines 36-43)
- Determining for one of the programs... (column 34, lines 58-63)
- Assigning one or more objects as default objects (column 34, lines 58-63)
- Assigning alternate objects (column 34, lines 58-63)
- Assigning the objects to the virtual objects locations (column 34, lines 58-column 35, line 2).

Rangan fails to disclose identifying one or more video programs to carry the targeted virtual objects.

Rangan discloses a method for adding text overlays, graphic icons and logos for advertisement over a video data stream (column 6, lines 38-50), advertisements may be

associated with a tracked object or may be set to track along with an object or appear in a fixed position anywhere on a screen (column 6, lines 6-16, column 17, lines 15-33), a retrieval plan 55 (annotation stream) is transmitted along with a video stream 53 to a user device which instructs the device where to position the advertising data (column 13, line 18-column 14, line 20), thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Alexander to utilize the video programs and retrieval plans of Rangan, thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Regarding claims 35, Alexander discloses the percentages are based on viewer demographics and location (column 28, lines 13-21, column 29, lines 43-44, column 30, lines 29-38, column 32, lines 7-10).

Regarding claim 36, see claim 13.

Regarding claim 37, Alexander discloses that the retrieval plan and group assignments may be updated and sent back to the terminals (column 29, lines 14-30, column 33, lines 9-15, column 34, lines 49-55).

Regarding claim 38-39, Alexander discloses that the targeted objects, retrieval plan and group assignment matrix may be transmitted over the Internet (column 29, lines 31-37, column 33, lines 44-56).

Regarding claim 40, Alexander discloses that the objects may be transmitted from a cable network (headend, column 32, lines 45-51).

Regarding claim 41, Alexander discloses that the advertisements may be transmitted with the program (column 32, lines 55-56).

Regarding claim 42, Alexander discloses that the advertisements may be transmitted separately from the program (column 33, lines 44-47).

Regarding claim 43, Alexander discloses a method for locally targeting virtual objects to subscribers comprising,

Identifying one or more video programs to carry targeted virtual objects and assigning the targeted virtual objects to target categories (column 33, lines 47-65, column 35, lines 3-12)

Ranking one or more of the video programs based on target categories and a first percentage of total viewers in one or more groups of viewers (column 34, lines 36-41, the users of the EPG select sports themes more frequently than any other theme,

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thus sports themes video programs are ranked higher than other programs by a larger percentage of viewers)

Ranking the plurality of virtual objects based on a second percentage of total viewer in one or more groups of viewers (column 30, lines 17-44, column 34, lines 16-23, users are profiled, the profiled information is used to search for suitable advertisements which match the user's interests)

Determining for one or more of the video programs and one or more of the targets categories the plurality of virtual objects with overall highest rankings based on the first and second percentages (column 34, lines 16-23, advertisements may be selected based on access content, adjacent content and or viewer profile information)

Gathering information related to a plurality of the subscribers (column 29, lines 14-21),

Analyzing the information to create a profile of one of the plurality of subscribers (column 29, lines 14-32),

Correlating the profile with categories of virtual objects (column 29, lines 37-50, column 34, lines 16-23),

Selecting from the correlated virtual object for placement in a video program (column 34, lines 16-23, column 33, lines 36-42) based on an optimum placement determination (column 22, lines 34-56, tile 52 may be an ad slot which either scrolls off screen as the user browses or may remain in the screen at all times as the up and down arrow keys are pressed, thus maintaining an optimal position).

Alexander fails to disclose displaying a virtual object in a video program.

Rangan discloses a method for adding text overlays, graphic icons and logos for advertisement over a video data stream (column 6, lines 38-50), advertisements may be associated with a tracked object or may be set to track along with an object or appear in a fixed position anywhere on a screen (column 6, lines 6-16, column 17, lines 15-33, determined to be in an optimal position by the author), a retrieval plan 55 (annotation stream) is transmitted along with a video stream 53 to a user device which instructs the device where to position the advertising data (column 13, line 18-column 14, line 20), thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Alexander to utilize the video programs and retrieval plans of Rangan, thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Regarding claim 44, Alexander discloses gathering information related to the subscribers, including programs watched data (column 29, lines 1-68).

Regarding claim 45, Alexander discloses in figure 1, virtual objects locations in which advertisements are display in windows 14/16.



Regarding claims 46-47, Alexander discloses that there may be multiple locations for virtual objects (figure 1, positions 14/16), and that ads may be delivered along with a TV transmission (column 32, lines 55-60).

Rangan discloses the use of an annotation stream that identifies the location to place a virtual object within a video program (column 6, lines 6-16, column 11, lines 35-column 12, line 64).

Regarding claim 51, Alexander discloses a routine on a terminal device, which targets virtual objects to a viewer and group of viewers,

A group definition routine, which determines target categories of viewer characteristics (column 29, lines 31-55, column 30, lines 17-37),

A group assignment routine (column 32, lines 35-54)

A virtual object location routine (column 22, lines 1-9),

A retrieval plan generator for retrieving objects based on group number (column 34, lines 17-25) and one or more virtual objects is assigned comprising:

Ranking one or more of the video programs based on target categories and a first percentage of total viewers in one or more groups of viewers (column 34, lines 36-41, the users of the EPG select sports themes more frequently than any other theme, thus sports themes video programs are ranked higher than other programs by a larger percentage of viewers)

Ranking the plurality of virtual objects based on a second percentage of total viewer in one or more groups of viewers (column 30, lines 17-44, column 34, lines 16-

23, users are profiled, the profiled information is used to search for suitable advertisements which match the user's interests)

Determining for one or more of the video programs and one or more of the targets categories the plurality of virtual objects with overall highest rankings based on the first and second percentages (column 34, lines 16-23, advertisements may be selected based on access content, adjacent content and or viewer profile information)

A delivery processor that sends group assignment rules to the individual viewer terminals (column 32, lines 24-60, a processor in the headend transmits the ads by zip code or watermark so that users in the proper region view the proper targeted ad).

Alexander fails to disclose determining an available virtual object location in a video program.

Rangan discloses a method for adding text overlays, graphic icons and logos for advertisement over a video data stream (column 6, lines 38-50), advertisements may be associated with a tracked object or may be set to track along with an object or appear in a fixed position anywhere on a screen (column 6, lines 6-16, column 17, lines 15-33), a retrieval plan 55 (annotation stream, which identifies the location to place a virtual object) is transmitted along with a video stream 53 to a user device which instructs the device where to position the advertising data (column 13, line 18-column 14, line 20), thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Alexander to utilize the video programs and retrieval plans of

Rangan, thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Regarding claim 53, Alexander discloses a method for targeting virtual objects to locations in a program,

Identifying advertisements for insertion into a location (column 34, lines 17-25) wherein the assigning the plurality of virtual objects further comprises:

Ranking one or more of the video programs based on target categories and a first percentage of total viewers in one or more groups of viewers (column 34, lines 36-41, the users of the EPG select sports themes more frequently than any other theme, thus sports themes video programs are ranked higher than other programs by a larger percentage of viewers)

Ranking the plurality of virtual objects based on a second percentage of total viewer in one or more groups of viewers (column 30, lines 17-44, column 34, lines 16-23, users are profiled, the profiled information is used to search for suitable advertisements which match the user's interests)

Determining for one or more of the video programs and one or more of the targets categories the plurality of virtual objects with overall highest rankings based on the first and second percentages (column 34, lines 16-23, advertisements may be selected based on access content, adjacent content and or viewer profile information)

Generating a profile (column 29, lines 22-55)

and providing an object at least partially based on the individual user profile (column 32, lines 39-54) and group assignment rules, the rules being provided by a remote location to the local viewer terminal (column 32, lines 24-60, a processor in the headend transmits the ads by zip code or watermark so that users in the proper region view the proper targeted ad).

Alexander fails to disclose inserting virtual objects in a video program.

Rangan discloses a method for adding text overlays, graphic icons and logos for advertisement over a video data stream (column 6, lines 38-50), advertisements may be associated with a tracked object or may be set to track along with an object or appear in a fixed position anywhere on a screen (column 6, lines 6-16, column 17, lines 15-33), a retrieval plan 55 (annotation stream) is transmitted along with a video stream 53 to a user device which instructs the device where to position the advertising data (column 13, line 18-column 14, line 20), thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Alexander to utilize the video programs and retrieval plans of Rangan, thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Regarding claim 54, Alexander discloses a method for targeting advertisements,

Identifying a terminal based on viewing characteristics of individual terminals information (column 30, lines 1-37, column 32, lines 24-34)

Identifying virtual object locations... (column 22, lines 1-9),

Targeting virtual objects for insertion... (column 32, lines 39-47) wherein the targeted virtual objects is assigned comprising the steps of:

Ranking one or more of the video programs based on target categories and a first percentage of total viewers in one or more groups of viewers (column 34, lines 36-41, the users of the EPG select sports themes more frequently than any other theme, thus sports themes video programs are ranked higher than other programs by a larger percentage of viewers)

Ranking the plurality of virtual objects based on a second percentage of total viewer in one or more groups of viewers (column 30, lines 17-44, column 34, lines 16-23, users are profiled, the profiled information is used to search for suitable advertisements which match the user's interests)

Determining for one or more of the video programs and one or more of the targets categories the plurality of virtual objects with overall highest rankings based on the first and second percentages (column 34, lines 16-23, advertisements may be selected based on access content, adjacent content and or viewer profile information)

Alexander fails to disclose identifying a virtual object location in a video program

Rangan discloses a method for adding text overlays, graphic icons and logos for advertisement over a video data stream (column 6, lines 38-50), advertisements may be associated with a tracked object or may be set to track along with an object or appear in a fixed position anywhere on a screen (column 6, lines 6-16, column 17, lines 15-33), a retrieval plan 55 (annotation stream) is transmitted along with a video stream 53 to a

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user device which instructs the device where to position the advertising data (column 13, line 18-column 14, line 20), thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Alexander to utilize the video programs and retrieval plans of Rangan, thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Regarding claim 55, Alexander discloses displaying multiple ads simultaneously, (figure 1, locations 14/16, 52) at the identified terminals (column 32, lines 35-54).

Regarding claims 56 and 58, Alexander discloses that a virtual object may be an EPG link to an Internet website which then displays the information (column 34, lines 10-15).

Regarding claim 57, Alexander discloses that the content may be a video clip related to the product being advertised (column 20, lines 4-12).

The combination of Alexander and Rangan does not disclose the location of the video clip.

The examiner takes official notice that transmitting video from a operations center is notoriously well known in the art. Transmitting from an operations center on

the same network allows for the video to be transmitted with a high quality of service, as the data is located on the same network as a user.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Alexander and Rangan to store a video clip at an operations center, thus allowing for a high fidelity transmission through a local network provider.

Regarding claim 59, Alexander discloses a terminal that targets virtual objects for display to a viewer comprising,

A receiver that receives group assignment rules (column 3, lines 1-7, column 32, lines 35-54, column 34, lines 10-25) virtual objects, and a virtual object retrieval plan, wherein the assigning the plurality of virtual objects further comprises:

Ranking one or more of the video programs based on target categories and a first percentage of total viewers in one or more groups of viewers (column 34, lines 36-41, the users of the EPG select sports themes more frequently than any other theme, thus sports themes video programs are ranked higher than other programs by a larger percentage of viewers)

Ranking the plurality of virtual objects based on a second percentage of total viewer in one or more groups of viewers (column 30, lines 17-44, column 34, lines 16-23, users are profiled, the profiled information is used to search for suitable advertisements which match the user's interests)

Determining for one or more of the video programs and one or more of the targets categories the plurality of virtual objects with overall highest rankings based on the first and second percentages (column 34, lines 16-23, advertisements may be selected based on access content, adjacent content and or viewer profile information)

A memory that stores the group assignment rules (column 32, lines 35-60) and virtual object retrieval plan (column 34, lines 12-25),

A processor (column 5, lines 21-37) that executes a group assignment plan using the group assignment rules and data related to the terminals based on common viewer characteristics (column 32, lines 35-54, zip codes are common characteristics)

A virtual object location routine (column 22, lines 1-9), which assigns virtual objects based on a comparison of the retrieval plan and group assignments (column 32, lines 24-60, a processor in the headend transmits the ads by zip code or watermark so that users in the proper region view the proper targeted ad ,column 34, lines 17-25).

Alexander fails to disclose a receiver that receives video programs containing virtual object locations.

Rangan discloses a method for adding text overlays, graphic icons and logos for advertisement over a video data stream (column 6, lines 38-50) which is received at a user receiver (figure 12, column 21, lines 18-25), advertisements may be associated with a tracked object or may be set to track along with an object or appear in a fixed position anywhere on a screen (column 6, lines 6-16, column 17, lines 15-33), a retrieval plan 55 (annotation stream) is transmitted along with a video stream 53 to a user device which instructs the device where to position the advertising data (column



13, line 18-column 14, line 20), thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Alexander to utilize the video programs and retrieval plans of Rangan, thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Regarding claim 60, Alexander discloses the rules are stored in memory (column 29, lines 14-27).

Regarding claim 62, Alexander discloses that there is internally generated information (column 30, lines 29-37), and externally provided information (column 29, lines 14-29).

Regarding claim 64, Alexander discloses the internal information includes programs watched (column 34, lines 49-51) and virtual objects displayed (column 27, lines 45-47).

Regarding claims 65 and 67, Alexander discloses that the user profile is periodically updated to include new information since the last analysis (column 29, lines 22-27).

Alexander and Rangan are silent regarding adding revised rules to further profile a user.

The examiner takes official notice that adding revised profiling rules to further profile a user is notoriously well known in the art. Adding new rules allows a profiling system to take into account new criteria and new types of programming.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Alexander and Rangan to include revised rules to redefine a group assignment, in order to take into account new criteria and more accurately profile a user.

Regarding claim 66, Alexander discloses that the user profile is periodically updated (column 29, lines 22-27) and may incorporate other information regarding a user (column 30, lines 18-37).

Regarding claim 68, Alexander discloses a method of assigning virtual objects to a program comprising,

Identifying a program to carry the virtual object (column 20, lines 28-49)

Ranking one or more of the video programs based on target categories and a first percentage of total viewers in one or more groups of viewers (column 34, lines 36-41, the users of the EPG select sports themes more frequently than any other theme, thus sports themes video programs are ranked higher than other programs by a larger percentage of viewers)

Ranking the plurality of virtual objects based on a second percentage of total viewer in one or more groups of viewers (column 30, lines 17-44, column 34, lines 16-23, users are profiled, the profiled information is used to search for suitable advertisements which match the user's interests)

Determining for one or more of the video programs and one or more of the targets categories the plurality of virtual objects with overall highest rankings based on the first and second percentages (column 34, lines 16-23, advertisements may be selected based on access content, adjacent content and or viewer profile information)

Assigning the virtual objects to target categories and groups, (column 34, lines 16-19)

Generating virtual object location group percentage breakdowns... (column 30, lines 38-44)

Creating virtual object rankings.... (column 30, lines 38-44)

Determining for one or more of the video programs and one or more of the targets categories the plurality of virtual objects with overall highest rankings based on the first and second percentages (column 34, lines 16-23, advertisements may be selected based on access content, adjacent content and or viewer profile information).

Alexander fails to disclose a video program, which carries a virtual object.

Rangan discloses a method for adding text overlays, graphic icons and logos for advertisement over a video data stream (column 6, lines 38-50), advertisements may be associated with a tracked object or may be set to track along with an object or appear in a fixed position anywhere on a screen (column 6, lines 6-16, column 17, lines 15-33), a

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retrieval plan 55 (annotation stream) is transmitted along with a video stream 53 to a user device which instructs the device where to position the advertising data (column 13, line 18-column 14, line 20), thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Alexander to utilize the video programs and retrieval plans of Rangan, thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Regarding claim 69, Alexander discloses a method of targeting virtual objects to terminals comprising,

Identifying virtual objects and providing them to a terminal (column 34, lines 10-25)

Ranking one or more of the video programs based on target categories and a first percentage of total viewers in one or more groups of viewers (column 34, lines 36-41, the users of the EPG select sports themes more frequently than any other theme, thus sports themes video programs are ranked higher than other programs by a larger percentage of viewers)

Ranking the plurality of virtual objects based on a second percentage of total viewer in one or more groups of viewers (column 30, lines 17-44, column 34, lines 16-23, users are profiled, the profiled information is used to search for suitable advertisements which match the user's interests)

Determining for one or more of the video programs and one or more of the targets categories the plurality of virtual objects with overall highest rankings based on the first and second percentages (column 34, lines 16-23, advertisements may be selected based on access content, adjacent content and or viewer profile information)

Generating group assignment rules and providing it to one or more of the terminals (column 32, lines 35-51),

Generating and storing a retrieval plan at the terminal (column 34, lines 17-23)

Providing a program which includes a virtual object location (column 19, lines 50-61) and the retrieval plan designates which objects to retrieve and display (column 34, lines 10-25).

Alexander fails to disclose providing a video program with a virtual object location.

Rangan discloses a method for adding text overlays, graphic icons and logos for advertisement over a video data stream (column 6, lines 38-50), advertisements may be associated with a tracked object or may be set to track along with an object or appear in a fixed position anywhere on a screen (column 6, lines 6-16, column 17, lines 15-33), a retrieval plan 55 (annotation stream) is transmitted along with a video stream 53 to a user device which instructs the device where to position the advertising data (column 13, line 18-column 14, line 20), thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Alexander to utilize the video programs and retrieval plans of Rangan, thus enabling advertising content to be placed anywhere on a screen while a user watches a program.

Regarding claim 70, see claim 3.

Regarding claims 71-72, Alexander discloses that the EPG may utilizes profiling rules (column 29, lines 31-33), and that during set up procedures, a user is asked to input their zip code and identify their cable subscription service (column 32, lines 7-21), this information is utilized to assign a user into a group for advertisement selections (column 32, lines 35-45).

Regarding claim 73 and 74, Alexander discloses the retrieval of a virtual object for display (column 34, lines 10-25), a comparison may be preformed to determine which object to display (column 34, line 56-column 35, line 2).

Regarding claim 75, Alexander discloses that a virtual object may be an EPG link to an Internet website (column 34, lines 10-15).

Regarding claim 76-78, Alexander discloses that group assignment rules are transmitted via a cable network (column 32, lines 7-21), the virtual objects may be

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transmitted from a cable network (headend, column 32, lines 45-51) and that that the retrieval plan is transmitted via a cable network (column 34, lines 10-23),

3. Claims 33 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,177,931 to Alexander in view of U.S. Patent 6,493,872 to Rangan in further view of U.S. Patent 6,741,834 to Godwin.

Regarding claim 33, Alexander discloses the use of a STB to display an EPG (column 3, lines 2-7).

Alexander is silent regarding the use of a GPS receiver to determine a geographical location and to store that data.

Godwin discloses an EPG which is run on a set top box 110, a GPS receiver 524 is utilized to determine the position of the subscriber receiver, this information is passed onto a controller 530 and EPG data module 532, which determines which EPG information should be displayed to a user without requiring any user input (column 7, lines 30-51, figure 8b).

Therefore it would have been obvious to one skilled in the art at the time of invention to modify the combination of Alexander and Rangan to utilize the GPS receiver of Godwin to determine which programs and channels should be made available to a user, for the advantage of presenting programming which would be of interest to a user and is relevant to a subscribers location.

Regarding claim 63, Alexander discloses the use of a STB to display an EPG (column 3, lines 2-7).

Alexander is silent regarding the use of a GPS receiver to determine a geographical location, area of influence, postal code information and to store that data in the terminal.

Godwin discloses an EPG which is run on a set top box 110, a GPS receiver 524 is utilized to determine the position of the subscriber receiver, this information is passed onto a controller 530 and EPG data module 532, which determines which EPG information should be displayed to a user without requiring any user input (column 7, lines 30-51, figure 8b).

Therefore it would have been obvious to one skilled in the art at the time of invention to modify Alexander to utilize the GPS receiver of Godwin to determine which programs and channels should be made available to a user, thus presenting programming which would be of interest to a user and is relevant to a subscribers location.

Godwin is silent regarding the use of a processor to determine the postal code information based off of a location.

The examiner takes official notice that the use of a lookup table to determine postal code information is notoriously well known in the art. For example <http://www.chilidog.com/zip/zipnotes.html> discloses the use of a zip code database, which includes latitude and longitudes corresponding to a zip code.



Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Alexander and Godwin to utilize a postal code lookup, thus enabling the receipt of customized information without requiring a user to enter any additional information.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hunter B. Lonsberry whose telephone number is 571-272-7298. The examiner can normally be reached on Monday-Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HBL



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